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Claims 1-52 (Cancelled.)

53. (New) An optical network system comprising:

a data service hub for sending downstream optical data signals on a first optical waveguide, and for sending downstream optical RF modulated television broadcast signals on a second optical waveguide;

a plurality of optical taps, each optical tap dividing downstream optical signals comprising a combination of the downstream optical data signals and the optical RF modulated television broadcast signals between a plurality of optical waveguides coupled to a plurality of subscriber optical interfaces;

each subscriber optical interface providing electrical communications to a subscriber, each subscriber optical interface coupled to a respective optical tap by an optical waveguide, for receiving the downstream optical signals from a respective optical tap and converting the downstream optical signals into downstream electrical signals; and

a laser transceiver node disposed between the data service hub and the optical tap, for communicating optical signals to and from the data service hub and to and from a respective optical tap, for apportioning bandwidth that is shared between groups of subscriber optical interfaces connected to a respective optical tap, the laser transceiver node further comprising:

a plurality of multiplexers for providing downstream modulation signals to respective optical transmitters and for receiving upstream electrical signals from respective optical receivers, each multiplexer corresponding to a respective optical tap;

a plurality of bi-directional splitters for receiving downstream and upstream optical signals, each bi-directional splitter coupled to a respective optical transmitter and a respective optical receiver;

an optical transceiver coupled to the first optical waveguide for converting downstream optical data signals from the first optical waveguide into downstream electrical data signals, for converting upstream electrical data signals into optical data signals;

a routing device coupled to each multiplexer and the optical transceiver, for assigning downstream electrical data signals received from the optical transceiver to predetermined multiplexers, for combining upstream electrical data signals from respective multiplexers into one electrical signal that modulates the optical transceiver; and

an optical splitter coupled to the second optical waveguide and respective optical diplexers, the diplexers for combining the downstream optical RF modulated television broadcast signals from the second optical waveguide with downstream optical data signals.

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54. (New) The optical network system of claim 53, wherein the laser transceiver node further comprises optical receivers for converting upstream optical data signals from a respective optical tap into upstream electrical data signals.
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55. (New) The optical network system of claim 53, wherein the laser transceiver node further comprises optical transmitters for converting downstream electrical data signals from a respective multiplexer into downstream optical data signals.
- 4  
56. (New) The optical network system of claim 53, wherein each subscriber optical interface receives upstream electrical data signals from a subscriber and converts the upstream electrical data signals into upstream optical data signals and sends the upstream optical data signals over an optical waveguide towards a corresponding optical tap.
- 5  
57. (New) The optical network system of claim 53, wherein each optical tap combines upstream optical data signals received from a plurality of optical waveguides and propagates the combined upstream optical data signals over a single optical waveguide.
- 6  
58. (New) The optical network system of claim 53, wherein the laser transceiver node accepts gigabit Ethernet optical signals from the data service hub and partitions the Ethernet optical signals into a predetermined number of groups.
- 7  
59. (New) The optical network system of claim 53, wherein the laser transceiver node comprises at least one optical transmitter, each optical transmitter comprises one of a Fabry-Perot laser, a distributed feedback laser, and a vertical cavity surface emitting laser (VCSEL).
- 8  
60. (New) The optical network system of claim 53, wherein the optical tap routing device manages upstream and downstream data protocols.
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61. (New) The optical network system of claim 60, wherein one of the protocols comprises a time division multiple access protocol.

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62. (New) The optical network system of claim 53, wherein data bit rates for the upstream and downstream optical signals are substantially symmetrical.

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63. (New) A method for communicating optical signals from a data service provider to at least one subscriber comprising:

sending downstream optical data signals on a first optical waveguide from a data service hub;

sending downstream optical RF modulated television broadcast signals on a second waveguide from the data service hub;

converting the downstream optical data signals into electrical data signals;

routing the electrical data signals to predetermined optical transmitters;

converting the electrical data signals back into optical data signals with each optical transmitter;

coupling an optical splitter to a plurality of diplexers;

dividing downstream optical RF modulated television broadcast signals from the second optical waveguide with a splitter among the plurality of diplexers;

combining the downstream optical RF modulated television broadcast signals from the second optical waveguide with downstream optical data signals from each optical transmitter with a respective diplexer;

propagating the combined optical signals over an optical waveguide; and

receiving the combined optical signals and dividing them between a plurality of optical waveguides coupled to a plurality of subscriber optical interfaces.

64. (New) The method of claim 63, further comprising receiving the combined optical signals with a subscriber optical interface and converting the combined optical signals into downstream electrical data and downstream electrical RF modulated television broadcast signals.

65. (New) The method of claim 63, further comprising:

separating the downstream optical data signals from the downstream optical RF modulated television broadcast signals; and

converting the optical signals into an electrical domain.

66. (New) The method of claim 63, further comprising providing one of video, telephone, and internet services via the optical signals.

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67. (New) The method of claim 63, wherein the step of routing further comprises using a time division multiplex protocol to divide the downstream signals between preassigned optical transmitters.

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